

DUAL FUNCTION, HIGHLY DAMPED, STRUCTURALLY AND
THERMALLY COMPLIANT AUXILIARY BEARING ASSEMBLY

ABSTRACT OF THE DISCLOSURE

An auxiliary bearing assembly for selectively engaging a shaft, preferably in an energy storage flywheel system, is configured to include a vibration damping seal, and an axial preload spring. The vibration damping seal damps out vibrations from the rotating group, following engagement of the auxiliary bearing assembly, while the rotating group is spinning down. The axial preload spring absorbs any differential thermal expansion or contraction that may occur between components.